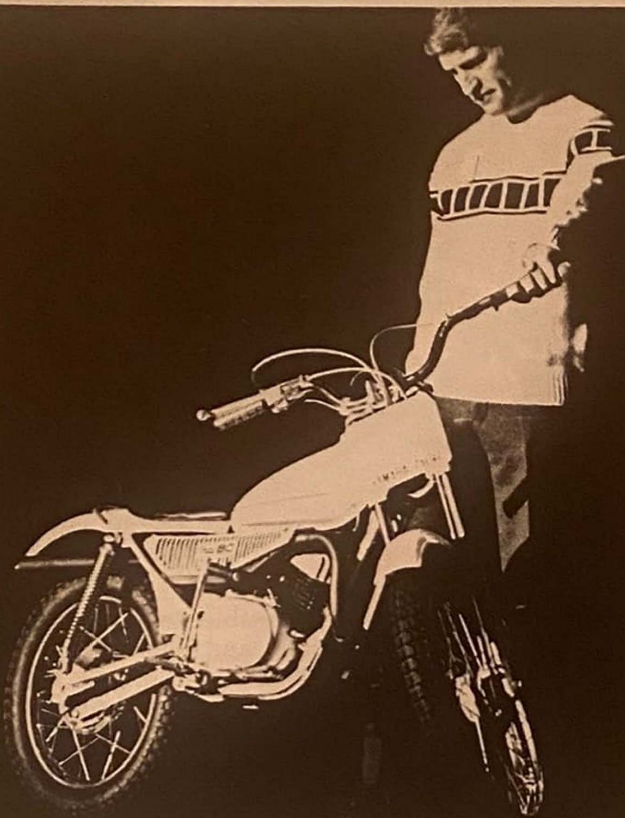


# ● YAMAHA TY 80 ● TRIALS BIKE



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It's not surprising to see new trials machines crop up lately because observed trials are rapidly catching on in America. Virtually every major company has a trials bike or two with more in the works. Suzuki has their RL, Yamaha now has two TY's and Honda has the popular TL series. We were even ready for Yamaha to introduce their trials machines in the guise of a 125 and 250 when Mick Andrews, world champion trials rider, was hired to do research and development on a "secret" new model. We got the 250 (whoopee) but the shock came when Yamaha showed up with a mini-

trials 80 at their press conference. What a mind-blower! We hadn't even heard any good rumors about the scaled down replica. Naturally we were eager to try the bike and even went to the trouble of slowing this issue up slightly to test it in a trials meet.

Jeff Ward is well-known for his racing abilities and we have used him in many tests for that reason. It came as a surprise to find out that he has also tried his hand at trials riding before and done quite well. This came as a relief since we weren't sure where to find a young, qualified trials rider. There can't be

too many around since there have never been any serious machines built before.

We decided to test the bike in the most reasonable manner possible since we have nothing else for comparison—we ran the TY 80 at a trials meet at Escape Country in California. The International Trials Association has regularly scheduled meets over a special wooded section of Escape Country. The area is rugged and atypical compared to the dry, dusty trails surrounding it. Watching the meet on this terrain is like taking a trip to Europe. Many of the riders are either Scotch or English and wear the traditional garb of the trials rider.

Jeff entered in the tougher Novice class because of his previous experience. It may have been possible to legally run him in the Beginner's class but Jeff felt he and the Yamaha were up to tougher sections.

While watching the other riders practice for a while we didn't exactly share Jeff's confidence. The sections were tough and the riders tougher. One of the competitors in his class was Gary Jones the number one Expert in motocross. Jeff went into this event handicapped by a smaller, unproven machine acquired a few days before. His practice was limited to a few hours and the machine had to be dead stock since it was to be returned to the factory later.

As he approached the first section the crowd was dead silent, a moment later our fears were allayed—he had cleaned the section! The crowd went nuts cheering as he rode by them. And so it went, section after section, until, 30 sections later, he finished in ninth place ahead of 25-30 other riders in the same class (by the way, Jones

had an incredible second place win). Once again our idea of testing a bike where it will be ridden, in competition, was proven right.

The Yamaha trials bike is destined to be a winner even if faced with stiff competition. Our test riders all enjoyed riding the machine over the course after the event. The most consistent area of praise was for the engine. Externally it appears to be the same basic engine as the GT 80, GT MX and RD 60. Internally there have been a few changes made. The GT 80 develops 4.0 foot-pounds of torque at 6,000 rpm while the TY 80 has 4.5 at 5,000 rpm. It may not sound like much but it does make a difference in a seat-of-the-pants feeling. The TY chugs up hills without any hesitation and can be brought to a stop and started again without pulling in the clutch. Even with a 160 pound rider on board the 80 can climb hills designed for 125's and 250's. Anyone accustomed to high-revving, peaky MX bikes will be shocked at the tractor-like pulling power of this little machine.

The side cases and finning are different giving the engine a distinctively new appearance. We didn't have time to tear the engine down, but we suspect that the squish area of the head is of a different design to yield higher compression and to alter the flow characteristics for more torque. The engine starts on the first kick, whether hot or cold, even though the foot pegs prevent a full swing on the starter lever. It's refreshing to ride after coddling high performance bikes. The engine will lug down and run all day at near idling speeds without fouling a plug.

Throttle response is excellent.



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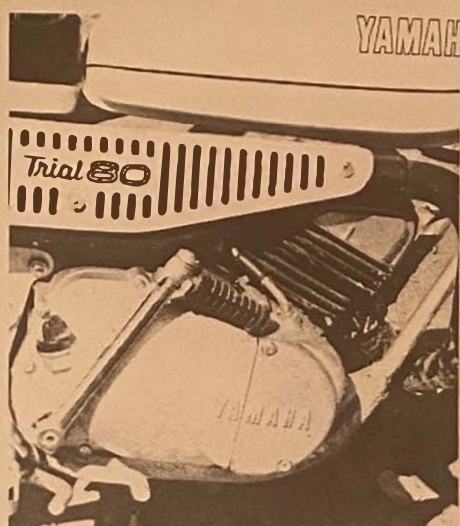
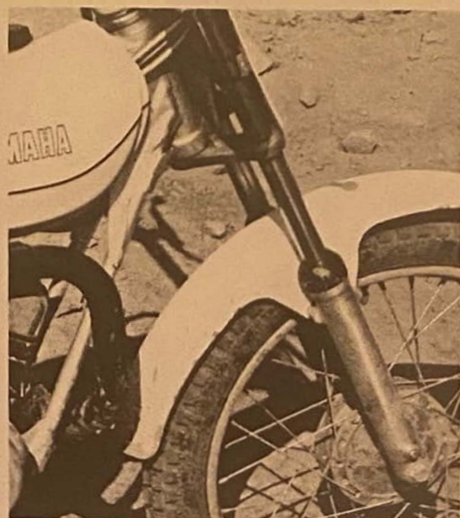
The proper way to negotiate a vertical wall is to loft the front wheel and place it on the top of the bank. As the frame hits, the throttle should be shut off and re-applied slightly as the rear wheel hits. The momentum will carry the bike over the top with ease. This practice requires skill and a responsive machine. If the wheel hits at the wrong angle, or if power is left on, the bike will loop over backwards. We watched as Jeff practiced this for nearly a half-hour without failing. At times it's necessary to do this after negotiating a section at near idle speeds. A lesser bike might stumble and falter when the throttle is cracked on suddenly. The Yamaha pulls smoothly from any speed and the wheel can be powered up at will.

A special chain tensioner is also a great aid to complete power control over rough terrain. Normally, a chain will stretch even if properly cared for and checked frequently. It

isn't possible to stop mid-stream (literally and figuratively) and adjust a chain during a meet. The tensioner takes up slack and prevents jerking as the throttle is rolled on and off.

The frame is designed very well and appears to be quite strong, possibly too strong. It is of standard design with a single backbone and double downtubes cradling the engine. Considering the source of design it seems odd that the frame is this way. Almost all successful trials bikes have a single downtube which ends at the front of the cases and a flat, steel plate extending back to protect the engine from rocks. This allows at least another inch of ground clearance. The Yamaha has a fair amount of breathing room underneath with 8.7 inches but the more the merrier.

True trials aficionados will probably modify using the engine as part of the lower frame. Trials is not as demanding of the frame as MX so



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## YAMAHA TY80

**Manufacturer:** Yamaha International, 6600 Orange Thorpe Ave., Buena Park, CA 90620

### ENGINE:

Engine type	2-stroke, Torque	Carb	N/A
	Induction Single	Ignition	Flywheel Magneto
Bore & Stroke	1.575 x 1.563 in	Lubrication	Autolube
Displacement	72cc (4.39 cu in)	Fuel Capacity	0.7 U.S. gal.
Horsepower @ rpm	N/A	Fuel requirement	N/A
Compression ratio	7.0:1		

### TRANSMISSION:

Transmission type	4-speed gearbox	Final Drive	N/A
Primary drive	N/A	Gear ratios	N/A
Clutch	N/A		

### CHASSIS:

		Tires	
		Front	2.50-16
		Rear	3.00-14
Frame type	N/A	Brakes	N/A
Wheelbase	40.4 in	Ground clearance	8.7 in.
Overall length	61.4 in.	Seat Height	N/A
Overall width	27.2 in	Handlebar height	N/A
Suspension	N/A	Dry weight	N/A
Wheels	N/A		

**PRICE AS TESTED** ..... N/A

it's possible to get away with a weaker, lighter unit.

All controls are excellent for a young rider (some of our older staff members couldn't resist the urge to try riding the TY. It's easy to tell who they are—they walk around hunched over saying, "OOH! My back hurts!") The bars are placed for best control while standing. The foot pegs are placed well to the rear to keep rider weight off of the front wheel. This is the best position for putting body English to good use and for lofting the wheel at will.

The brakes are strong enough to lock the wheel if needed although most riders prefer not to. All levers are tucked in to prevent snagging on brush. The problem is that the rear brake is too well hidden. A toe-hold is about the best you can expect after hunting for the lever. The shift lever is a good distance away from the foot pegs even for a rider with seven-league boots. Again, this is standard practice but we don't like taking our foot off the peg to shift.

The suspension is better than any

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Yamaha we've tested and perfect for the intended job. The forks are a total new design with plenty of travel. The rear shocks are soft enough to absorb minor jolts and strong enough to handle drop-offs. The rake is shallow giving quick and responsive handling for picking a path through tough obstacles.

Trials universal tires give excellent traction over most types of terrain but the tread design doesn't shed mud as well as it should. The mud at Escape Country is like glue and sticks between the knobs making the tires slippery over rocks.

Overall design of the bike is pleasing to the eye even for the spidery appearance typical of the breed. The tank is extremely narrow to allow the rider to move around. The fenders are molded of polypropylene for durability. The front fender is close to the wheel to prevent mud from splashing onto the rider. The seat is typical; it's as hard and comfortable as a billiard table. This really doesn't matter because it's only used between sections or for high-speed sections in Scottish-style trials events.

If you haven't guessed by now, we're fascinated by this bike as we're sure others will be. Cycles are here to stay but styles of riding change as rapidly as any other fad. The first fad was choppers followed by cafe' racers, mini-bikes, scrambles, desert, flat-track minicycles, MX, etc. Now there is accelerated interest in speedway and trials. We'd be willing to say that trials will be the new wave of the future with Yamaha riding on the crest. Unlike other forms of competition, trials is within reach of the average rider. The bikes are cheaper as is preparation and maintenance. The sport is safer. Evidence of this is that trials riders are the only ones permitted to ride in competition without a helmet or protective headgear. In the history of the event, there has never been a single death.

The emphasis is on rider skill rather than power. Machines of 80, 100, 125, and 250cc's run in the same class without any difficulty. Only a few dollars separate the best machines from the worst. If Jeff's ride is any basis for criteria, there is little, now, to separate the men from the boys. □